

What is Claimed:

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1. An assembly suitable for thermally assisted/thermal information processing control, the assembly comprising:
- 1) a temperature sensing element for measuring/infering the temperature of a media;
- and
- 2) a controller responsive to the temperature sensing element and capable of inputting power to a media based on a measured/inferred temperature of the media.
2. An assembly according to claim 1, wherein the temperature sensing element is selected from the group consisting of a thermocouple, a thermistor, and a piezoelectric.
3. An assembly according to claim 1, wherein the temperature sensing element comprises write coils of a magnetic recording head.
4. An assembly according to claim 1, wherein the temperature sensing element comprises a magnetic resistive sensor.
5. An assembly according to claim 1, wherein the controller comprises an actuator selected from the group consisting of a piezoelectric actuator, an electromagnetic actuator, and an air-bearing mechanism.

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6. An assembly comprising:

- 1) a directed energy source for heating a media;
  - 2) a temperature sensing element for measuring/infering the temperature of the media;
- and
- 3) a controller responsive to the temperature sensing element and capable of inputting power to a media based on a measured/inferred temperature of the media.

7. An assembly according to claim 6, wherein the temperature sensing element is selected from the group consisting of a thermocouple, a thermistor, and a piezoelectric.

8. An assembly according to claim 6, wherein the temperature sensing element comprises write coils of a magnetic recording head.

9. An assembly according to claim 6, wherein the temperature sensing element comprises a magnetic resistive sensor.

10. An assembly according to claim 6, wherein the controller comprises an actuator selected from the group consisting of a piezoelectric actuator, an electromagnetic actuator, and an air-bearing mechanism.

11. An assembly according to claim 6, wherein the controller comprises a servo-loop which feeds on the energy output by the energy source for adjusting the temperature of a media.